

PHENIX WEEKLY PLANNING



Technical Support 2008

11/13/2008
Don Lynch

IR Configuration for remainder of shutdown

October November December January

5 12 19 26 2 9 16 23 30 7 14 21 28 4 11 18 25

<DONE>

Run Position 10/20 - 10/31
(CM & MMS moved north WC west)

Station 1 south access 11/3-12/12
(MMS moved south WC west)

<Current IR Configuration>

Station 1 north access 12/15-12/31
(CM moved south, WC west)



East Carriage Install 1/2-1/15
(CM moved north, EC & WC opt.)



Run Position 1/16-1/19
(MMS moved north, EC & WC opt)



Ready for run 9 1/19-2/1
(MuID Collars Installed, EC & WC opt.)



Technical Support 2008

October November December January
 5 12 19 26 2 9 16 23 30 7 14 21 28 4 11 18 25

Station 1 south access 11/3-12/12
 (MMS moved south WC west)



Move MMS south 11/3 <DONE>

Install sta 1. S Scaffolds 11/4-11/7 < Done, Inspection needed>

HBD Installation (west) 11-6-11/7 <Mechanical Install Done Electrical Continues>
 (east) 12/17-12/31



MuTrigger FEE 11/10-11/14 <DONE>

Sta 1 S chasis install

Sta 1S chasis 11/3-11/14 <DONE>

Water & air (2&3 S Done)

Install/test cards 10/2-11/30
 sta 2&3 N and sta 1, 2 & 3 S



Install Lead absorber 11/17-11/21



Install FEE S rack platform 11/17-11/21
 And racks



FEE S Cabling & Testing 11/24-11/29



MuTr sta 1 S Decaps 12/1-12/12



October				November				December				January				
5	12	19	26	2	9	16	23	30	7	14	21	28	4	11	18	25

Station 1 north access 12/15-12/31
(CM moved south, WC west)



Remove Sta 1 S 12/1-12/18
And Sta 2/3 N scaffolds



Move CM south 12/18



Install MMS lampshade 12/18-12/21



Install MMN lampshades 12/18-12/31



Technical Support 2008

October November December January

5 12 19 26 2 9 16 23 30 7 14 21 28 4 11 18 25

East Carriage Install 1/2-1/15
(CM moved north, EC & WC opt.)

Install EC 1/2-1/15

Run Position 1/16-1/19
(MMS moved north, EC & WC opt)

Move MMS North 1/16

Ready for run 9 1/19-2/1
(MuID Collars Installed, EC & WC opt.)

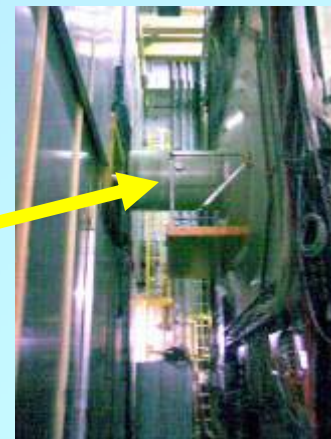
DC East/West Repairs 1/16-2/1

Install MuID Collars 1/19-1/21

Pink/Blue/White Sheets 1/16-2/1

Close Shield Wall 126-1/30

Cryo Start Up, Start Physics 2/1-2/18



Other On going Tasks

October				November				December				January				
5	12	19	26	2	9	16	23	30	7	14	21	28	4	11	18	25

Fan Tray Maintenance (fill in)



RPC3 Prototype install (11/15-11/30)
(including assembly at factory,
Moving tunnel shielding, modify
Crystal palace & vapor barrier,
RPC3 install, rack, install
scintillators, services & testing)



RPC Factory Support

Dark Current test stand



Storage Racks with humid. Cntrl



Prep for 2009 Shutdown
(as time permits)




~~Gas Mixing house - OPS by 11/30~~

<DONE>

Technical Support 2008

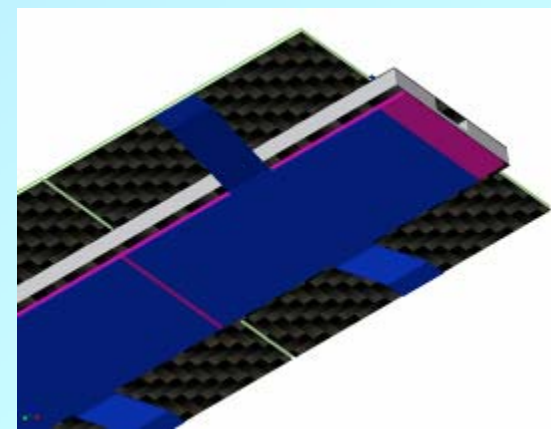
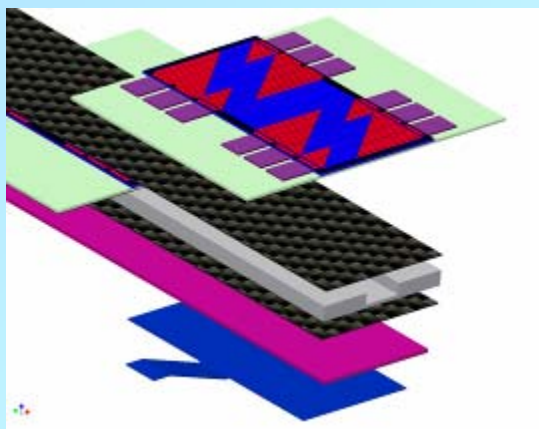
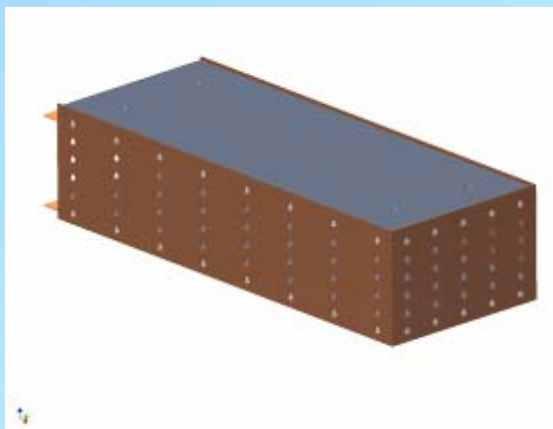
October November December January
 5 12 19 26 2 9 16 23 30 7 14 21 28 4 11 18 25

Rack room electronics, etc. 

Build new storage 10/1-11/15 crates 

NCC prototype design support
 HBD support
 VTX fabrication tooling design
 VTX installation design
 FVTX design/engineering support

 As Required



Shutdown '08 Electrician Work

- * Run Power to new MuTrgr FEE racks on MMS. *by 10/31 COMPLETED, Wire racks after rack installation*
- * Re-wire ToF Rack power distribution bucket in Gas Mixing House. This is to correct minor wiring errors. *By 11/31/08*
- * ~~Install new UPS in Gas Mixing house. *Done*~~
- * Walk down PHENIX Electrical Distribution Panels/Breakers and update changes on the electrical one-line drawings. *Complete by 11/30/08.*
- * Install power and signal cable tray (ceiling suspended) for new DCM rack row - north of existing DCM racks. *To Be Scheduled*
- * Assist in signal and LV cable installation for MuTr/ RPC upgrades as necessary. *MuTrgr North Done, MuTrgr South & RPC Prototype to be scheduled*
- * Repair Duct heaters for Control Room. *Temporary 15 KW Heater installed. 2 more week parts lead time for duct heater repair - CAD work.*
- * Upgrade power capacity of Central Magnet power distribution for future bridge rack loads.
- * Remove existing 15KVA transformer and install 45KVA unit.

Lower priority not required for run 9, to be scheduled when manpower available and operations & projects inconvenience are minimized

1008 Building Maintenance Issues

- Roof leak in utility bathroom at northwest corner behind tech offices.
- Roof leak over door between rack room and assembly hall.
- Trailer bathroom slop sink (for Custodians).
- Heat wrap tape for trailer bathroom toilet drains to prevent freeze/clogging in winter.
- New duct heater (In progress)
- Improved Rack Room AC performance (In Progress)



Scaffolding Crates

Technical Support 2008



Existing Crates for Sta 2/3N scaffolds are severely rotted and need to be replaced with weather resistant materials.

Sta. 1 scaffolds do not have storage crates. These need to be built of similar materials. All dimensions of crates are available.

MuTrigger FEE South & RPC Prototype Racks

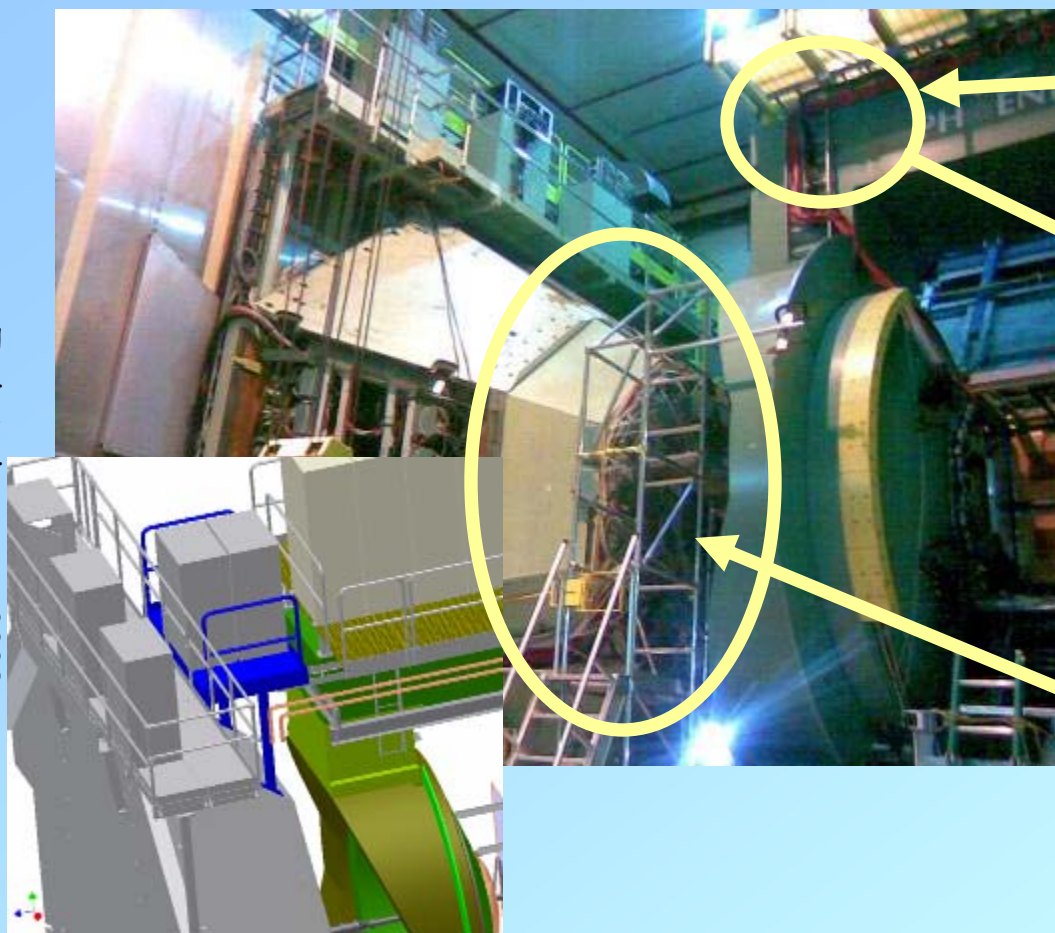
Technical Support 2008



Both Racks ready for installation

MuTrigger FEE South Rack

Technical Support 2008



Bridge water manifolds removed for rework



Station 1 South Scaffold is installed

IR is ready for MuTrigger South Rack Platform

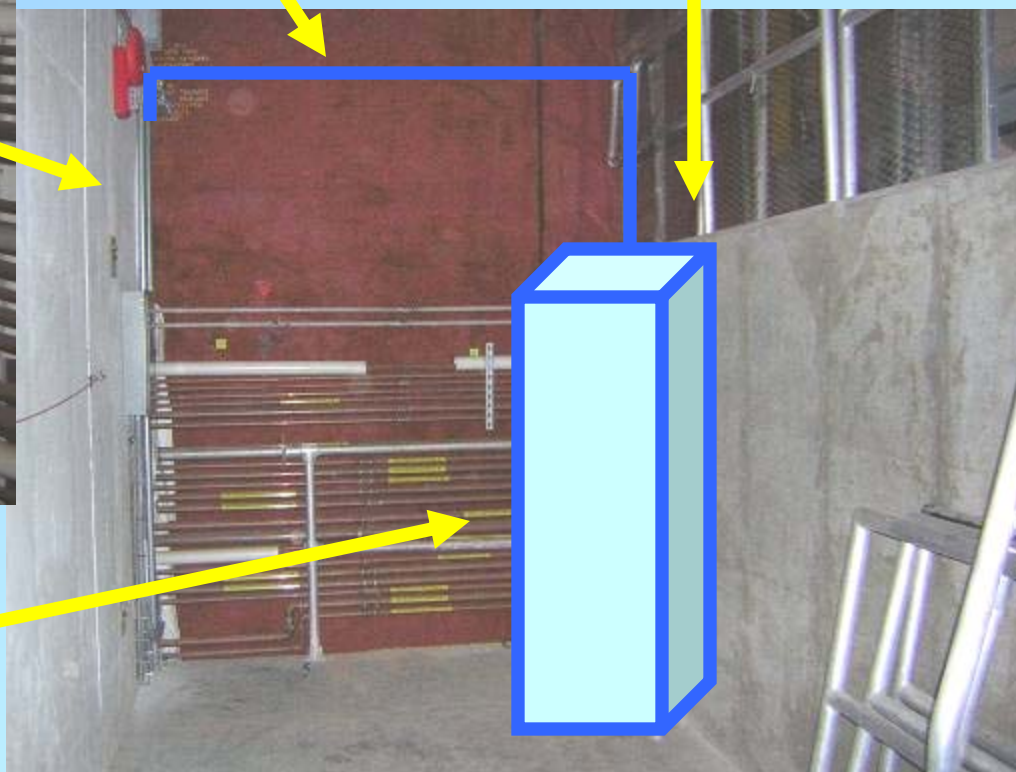
RPC2&3 Prototype Rack

Technical Support 2008



Power bridges
across to Rack

Cable tray runs on
edge of pedestal
floor to rack



Rack goes here

MuTrigger FEE North Sta. 2 & 3 PC Board installation and cable connections continue

Technical Support 2008



11/13/08



RPC2 Prototype Installation



RPC prototypes will be ready for installation as follows: RPC3 11/17, RPC2: Done

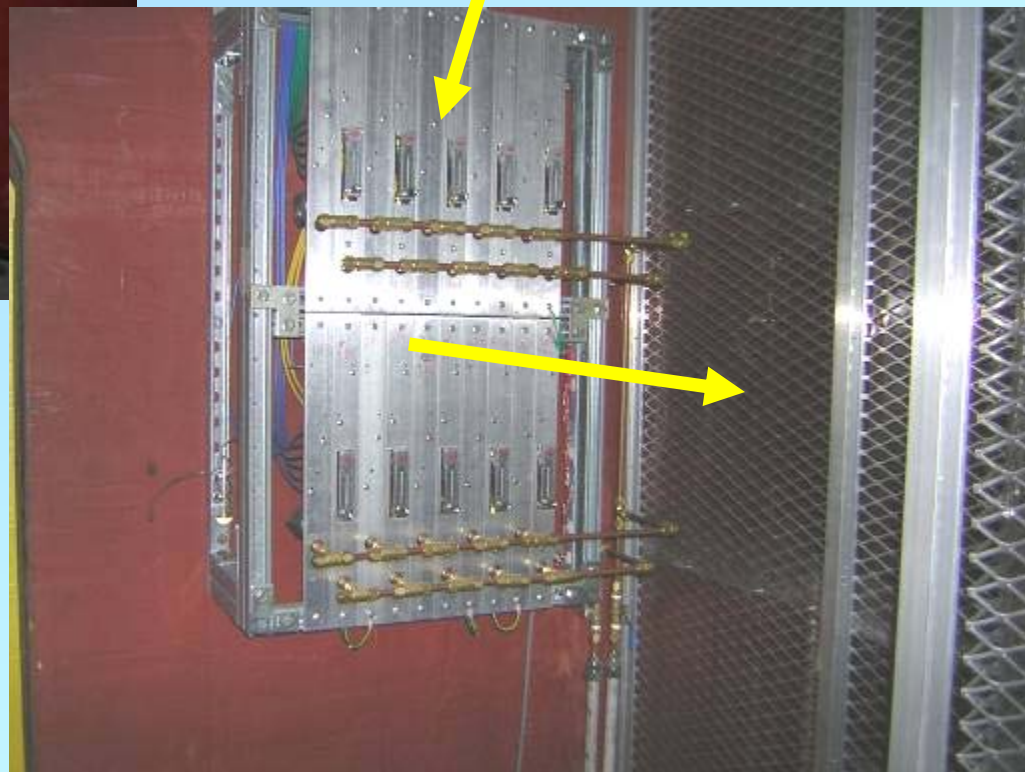
RPC2&3 Prototype Installation

Technical Support 2008

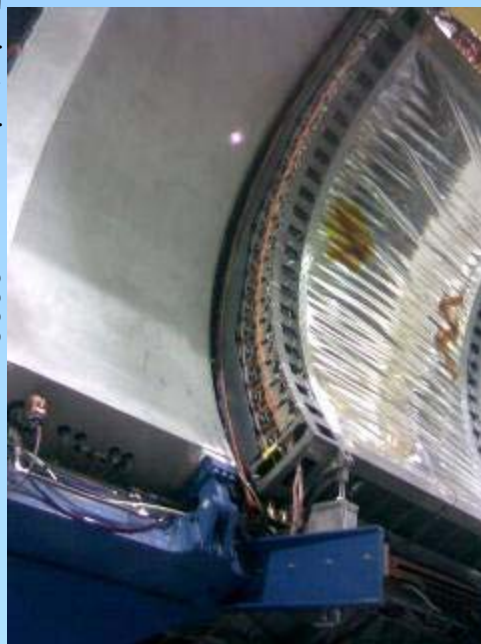
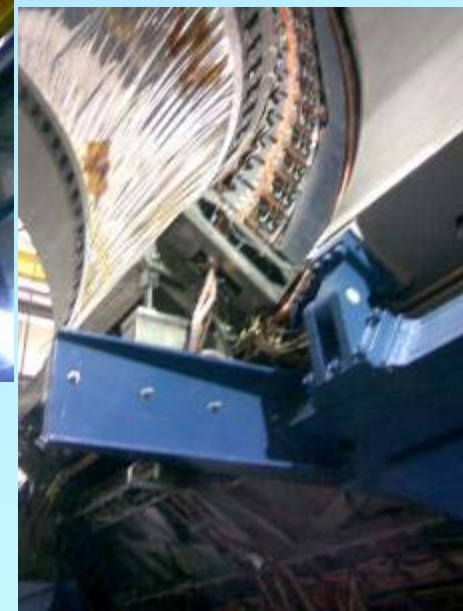


Cables go under magnet to west side of pedestal

Gas flow rack and gas lines to be taken off MuID steel and moved to crystal palace wall



Planning is in progress



Technical Support 2008

11/13/08

PC1 East Broken Wire Repair

PC1 East Spare in Bldg 510

Technical Support 2008



RPC Absorber

PC1 East Broken Wire Repair



All Lead cut,
painted and
ready for
installation



*The Prodigal detector returns!
Let's slaughter the fatted calf!*

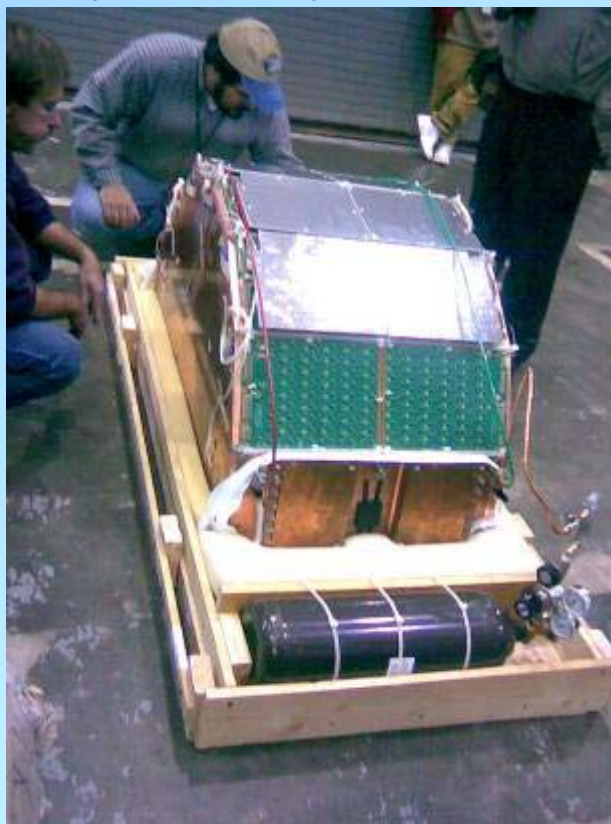
HBD

HBD Installation Schedule:

West (Bill): 11/6 (Done)

East (Ted): 12/16 (tentative)

Technical Support 2008



11/13/08

From Young Jin:

1. two more RPC gap storage shelves: It can be same size and same structure as current shelves. They all have to be covered with plastic curtains. We will try to measure temperature and humidity variation inside the shelves. *(How many Total?)*
 2. two more storage shelves for RPC detector frames, readout strip planes, half octant frames, and assembled RPC modules: It will be good enough for this with same size and structure as RPC gap storage shelf. *(How many Total?)*
 3. half octant storage structure: we are thinking to store 10 half octants at the burn-in test and 10 half octants with nitrogen gas. Therefore, we will need 20 half octant storage ares. *(Bicycle Rack Style?)*
- For the burn-in test, we are thinking to use current mix gas system (it will be extended in term of capacity) at the factory and H.V system as well, which means that we are going to bring gas pipes and H.V lines around the burn-in test area. *(Safety Approvals needed)*
4. some kind of cart for moving half octant



From Young Jin:

dark current test stand:

I do not know what Rusty gave you information about this but I want to remind you that we are going to test bare RPC gaps into the dark current test stand not detector module. *(What are the hazards, in the current plan the leads were to be isolated but the test stand was to be open)*

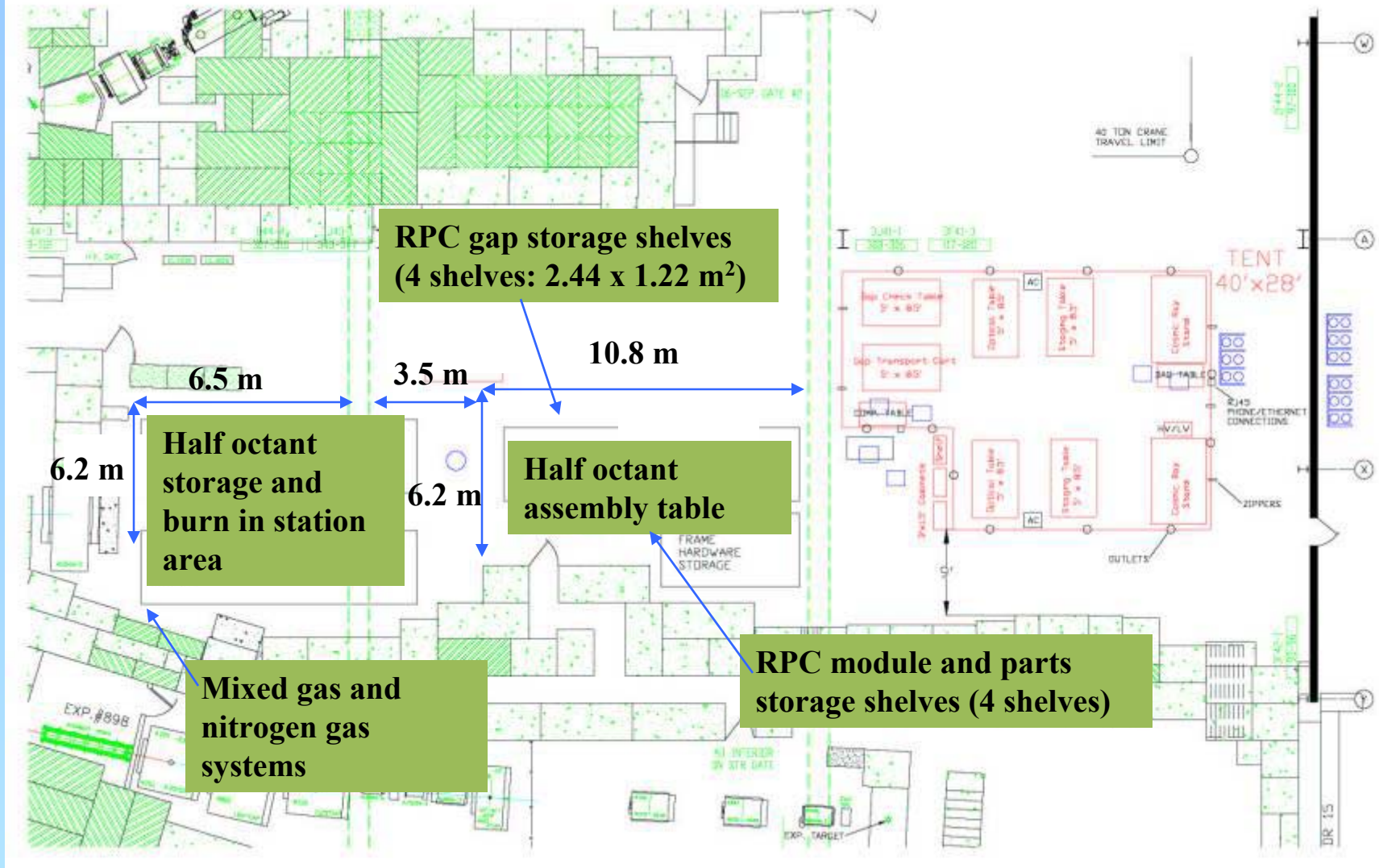
I think that we need some kind of insulating material over metal slot and it can protect any electrical hazard between bar RPC gap and metal slot under ~ 10 kV High voltage. *(Was not in the plan)*

I think that Rusty already discussed about this and I understand that we are going to put walls on three sides and to make door on one side, so we can have closet dark current test stand. *(Not our understanding)*

From Young Jin:

survey of half octant and gap storage:

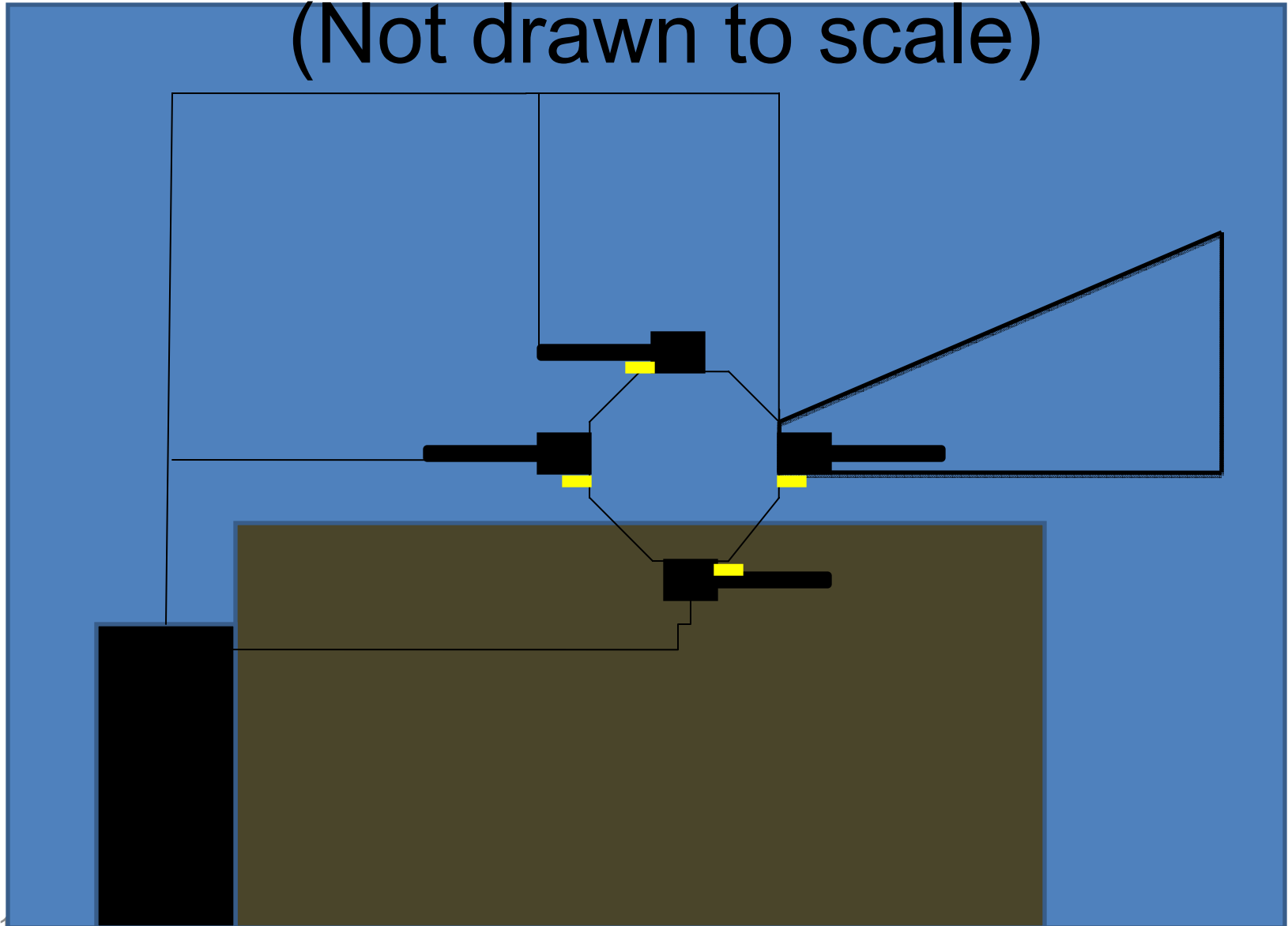
It will be very good to have the number of how much bending at the middle of half octant due to gravitation if we can measure it. Korean have a worry about how flat is the RPC gap storage we have now. Could we measure it also? *(Referenced to what?, Supported How and where?, orientation?)*



RPC3 Prototype Installation: Scintillators

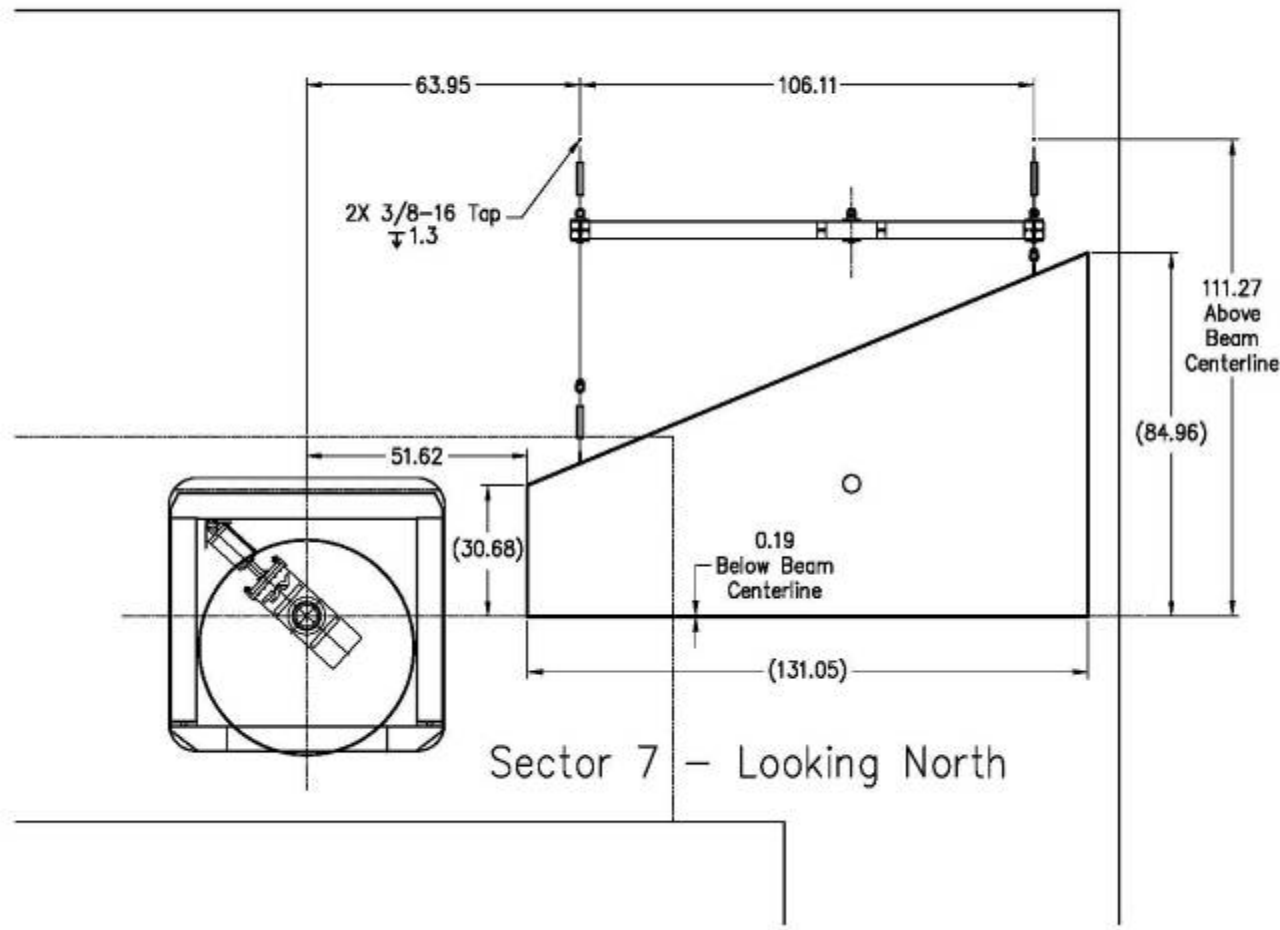
- 4 pairs of scintillation counters
- each pair consists of 2 ~1" thick scintillators; active area ~ 2" x 2" ; Length ~10" with phototube and shielding; light guide cylinder ~ 1" dia. With 1" dia PMT's; Weight is ~ 4 lb per pair.
- TLD's: Change and read weekly (quantity and location TBD)
- To be positioned in South tunnel uniformly distributed around the beam pipe at approximately 3, 6, 9 and 12 O'clock at a radially convenient location which overlaps the RPC3 prototype
- Z location is south of RPC3 as close as possible but at most 12" away (for the 3 O'clock pair, others to match z-position)
- Detectors require 2.5 kV to be run from IR.
- 16 channel signal, also to be run from IR
- Rack support is TBD

Position rel. to detector (Not drawn to scale)

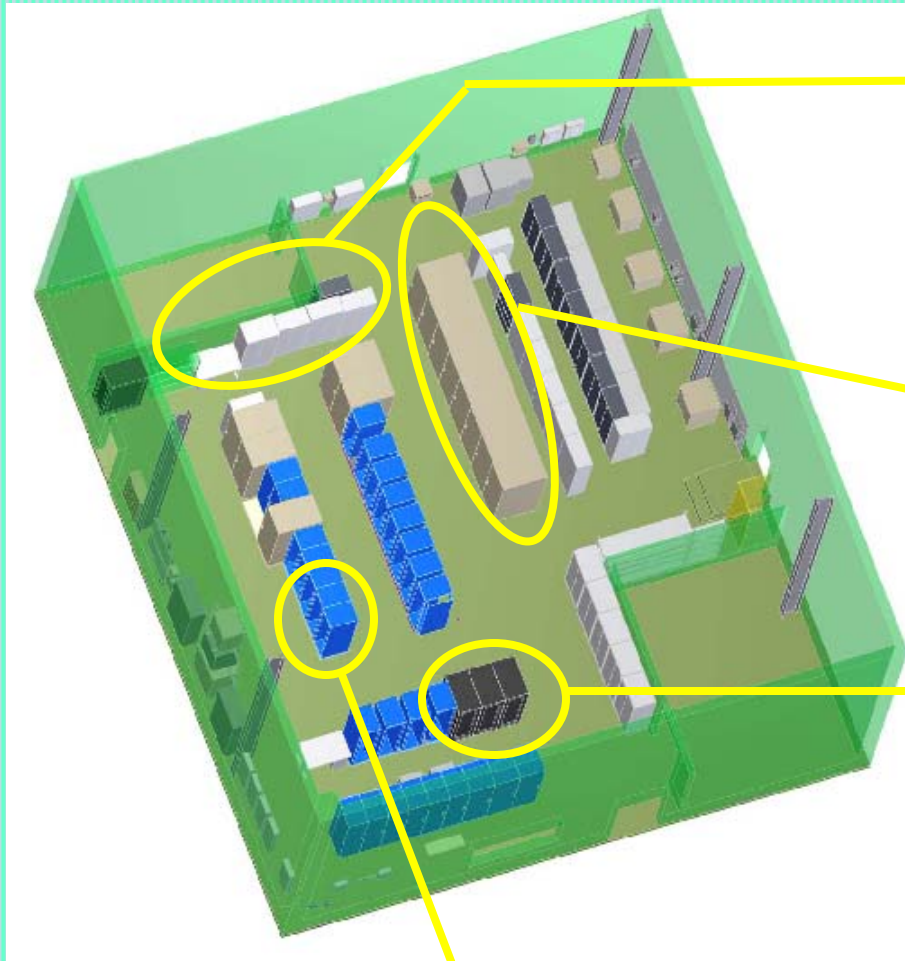


RPC3 Prototype Mounting Scheme (from C. Pearson)

Technical Support 2008



Proposed Reorganization



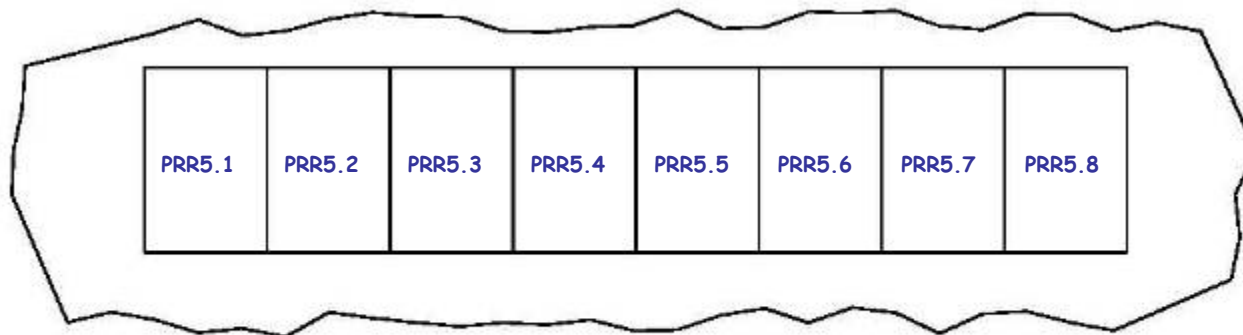
Relocated file & storage cabinets, & desk

Added 2 DCM racks to east end of row 5 and 2 DCM racks to west end of row 5

Moved 2 large black racks from row 4 and added a third large black rack to row 2

Moved tall blue (open) rack from north end of row 2 to east end of row 3 and added another of the same to row 3

PHENIX Rack Room Row 5



DETAIL F
SCALE 1 / 25



PHENIX Rack Room Row 6 & 7 Storage

Need to tee off supply and returns for 2 racks in each of these 2 positions

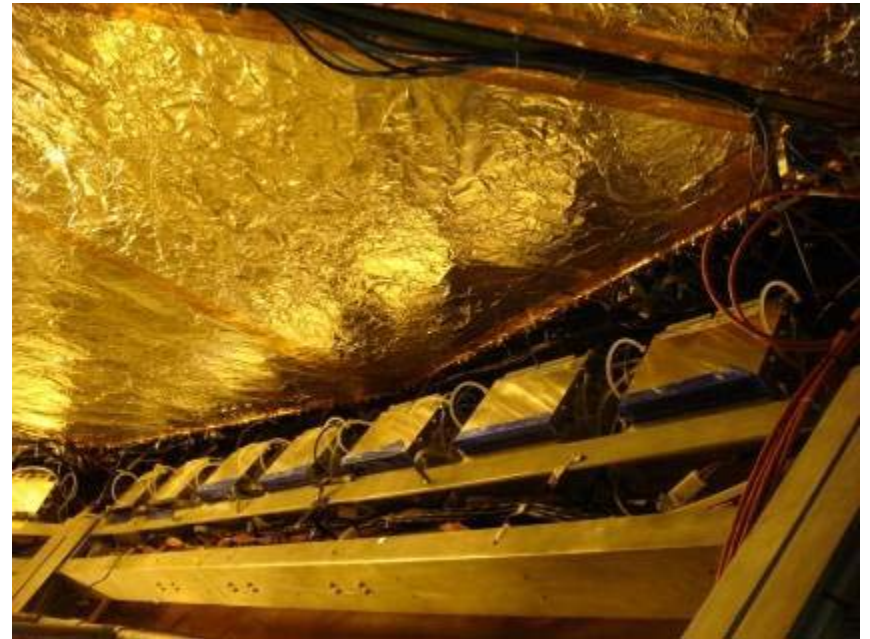
MuTr FEE upgrade status

Tsutomu Mibe (KEK)
for the onsite upgrade team

Installation status

- Cables
 - Station 2
 - Completed
 - Station 3
 - One more octant to go (Octant 6)
- ADTX boards (Jimmy)
 - Station 2
 - Completed
 - Station 3
 - One more octant to go (Octant 6)

The last octant (st3,oct6)



Preparation of ADTX boards and cables

- QA has been **completed**
(Sean)

Boards for the last octant (N.St3.O6)



Boards and cables for South arm



Remaining tasks for completion of North arm installation

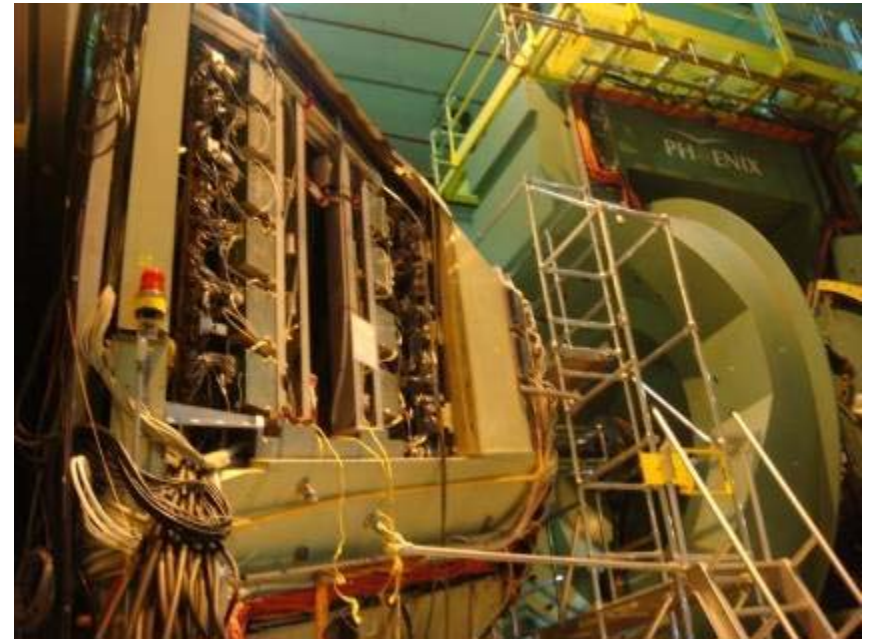
- Noise hunting at S3O6
 - ??? days
- Cable + ADTX board installation to S3O6 (1 day)
- Data taking with our local DAQ system (1wk+)
 - Now 10 boards can be read out at once! (previously one board)



Installation to South arm

■ Infrastructure

- Bundling of optical cables and LV cables is in progress, 30% done (Eric)
 - Cable routing (1 day)
 - LV distribution check (1 day)
- ## ■ Installation of FEE-ADTX cables (1-2 days)
- ## ■ Installation of ADTX board (1 day)



1. BNL September DART, Recordable and First AID Injury Reports:

2 DART, 3 Recordable, 5 First Aid

- Red Cross Volunteer cut thumb with knife - *First Aid*
- Central Shops worker touched hot surface, got burned - *First Aid*
- Chemistry Dept. worker got tendinitous from repeat motion - *First Aid*
- CAD worker cut thumb while cutting pipes - *First Aid*
- Plant Engg worker startled by bee fell, injured arm - *Recordable & DART*
- Plant Engg worker lacerated thumbnail & nail bed while deburring requiring xrays and surgery to remove nail - *Recordable and DART*
- Environmental Protection worker injured left side while examining equipment First Aid and additional treatment - *Recordable*
- Staff Services worker developed tendinitis from bundling mail - *First Aid*

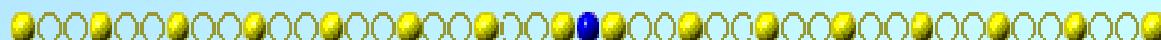
2. Drivers Beware: Wildlife Specialist Offers Hints For Avoiding Deer-vehicle Crashes - November is deer mating season. Its not the first deer that will jump out in front of you.. It's the one chasing her.

Where To Find PHENIX Engineering Info



Technical Support 2008

Links for the weekly planning meeting slides, long term planning, pictures, videos and other technical info can be found on the web site:



http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_SSint-page.htm